

CHAPTER 59. APPROVE/AUTHORIZE CATEGORY I/CATEGORY II/ CATEGORY III OPERATIONS

SECTION 1. BACKGROUND

1. PROGRAM TRACKING AND REPORTING SUBSYSTEM (PTRS) ACTIVITY CODES.

- Category I Special Authorization: 1404
- Category II/III Approval: 1430
- Copter ILS Approaches Below 200 Feet DH: 1220

2. OBJECTIVE. The objective of this task is to determine if an operator of a civil aircraft has developed acceptable procedures to conduct safe instrument approaches to Special Category (CAT) I and CAT II descent minimums. Successful completion of this task results in acceptance or rejection of the operator's proposed CAT II procedures manual (if required) and issuance or denial of FAA Form 7711-1, Certificate of Waiver or Authorization, or operations specifications (OpSpecs) under the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 125.

3. GENERAL.

A. Definitions.

(1) *Category A Aircraft.* A grouping of aircraft based on a speed of 1.3 times the stall speed in the landing configuration at the maximum certificated landing weight, and that speed must be less than 91 knots. The Federal Aviation Administration (FAA) authorizes deviation for an operator of a small Category A aircraft (less than 12,500 lbs. certificated takeoff weight) to use such an aircraft in CAT II operations without meeting the requirements of 14 CFR part 91, §§ 91.189, 91.205(f), and 91.191.

(2) *CAT I Operations.* An instrument approach procedure which provides for approaches to a decision height (DH) above touchdown of not less than 200 feet and a visibility of not less than 1/2 mile or a runway visual range (RVR) of not less than 2400 feet (RVR 1800 feet with operative touchdown zone and runway centerline lights). This definition is for CAT I instrument landing system (ILS) operations only and does not include CAT I operations as defined in FAA Order 8400.10, Air Transportation Operations Inspector's Handbook.

(3) *Special CAT I Minimums.* Minimums resulting from an analysis by Flight Standards Service which indicates that Automatic Flight Control Guidance Systems (AFCGS) significantly reduce excursions from the ILS on-course signal when compared to a manually flown approach. By using these systems, operators are able to maintain separation from obstacles that pilots flying manually with reference to raw data are unable to maintain. At selected locations, authorized operators will be allowed to use the special minimums, provided an approved autopilot with automatic tracking capability (approach coupler), an approved Head-Up-Guidance System (HGS), or flight director (FD), approved for CAT I operations, is used on the approach.

(4) *Copter ILS Approach Approval.* Authorizations issued after a successful demonstration of this capability provides the holder the authority to descend to a DH of less than 200 feet with less than 1800 feet visibility, while conducting a Copter ILS approach CAT II ILS procedure. Operations of this type are currently considered only in the case of Copter ILS approaches as described in paragraph 4A.

(5) *CAT II Operations.* Precision approach and landing operations conducted with a DH of less than 200 feet (60 meters) but not less than 100 feet (30 meters) and an RVR of not less than 1200 feet (350 meters).

(6) *CAT III Operations.* Operations separated into three separate subcategories:

(a) CAT IIIa is a precision approach and landing operation with an RVR of less than 700 feet (200 meters) but not less than 150 feet (50 meters) and a DH of 50 feet (15 meters) or less, or an alert height (AH) of 100 feet (30 meters) or less. Both fail-passive and fail-operational airborne equipment can be used in CAT IIIa operations.

(b) CAT IIIb is a precision approach and landing operation with an RVR of not less than 700 feet (200 meters) without a DH, or with an AH of less than

100 feet (30 meters) or less. Fail-operational airborne equipment must be used for CAT IIIb operations.

(c) CAT IIIc is a precision approach and landing operation without a DH and without RVR limitations (zero-zero). No CAT IIIc operations are currently authorized.

B. Applicability. The information detailed in this chapter applies to the operators of all civil aircraft operating under part 91 who do not hold an operating certificate issued under 14 CFR parts 121, 129, or 135. This guidance also applies to operators who hold deviation authority issued under § 125.3 and persons holding a part 125 operating certificate. This chapter addresses concepts and national policy guidance to be used by an aviation safety inspector (ASI) when evaluating, approving, or denying requests for an authorization to conduct CAT II operations.

(1) Presently there is no specific guidance for issuing CAT III authorizations to a part 91 aircraft. There is no guidance in this chapter for CAT III ILS or lower than standard microwave landing system (MLS) operations. Presently the FAA is studying the use of MLS approaches to lower than standard minima at CAT I runways. Inspectors receiving inquiries for this type of authorization should contact the appropriate regional Flight Standards operations division for guidance and coordination with AFS-400.

(2) There are three basic types of operators that might apply for CAT II authorization:

(a) Part 91 Operators.

(b) Part 125 Operators.

(c) Operators of Category A small aircraft requesting deviation under § 91.193.

(3) For parts 121, 129, and 135, refer to FAA Order 8400.10.

4. LOWER THAN STANDARD CAT I MINIMUMS AND COPTER ILS APPROACHES ON 14 CFR PART 97 COPTER ILS AND CAT II ILS PROCEDURES.

The DH and RVR for an aircraft on an ILS approach is specified on the part 97 standard instrument approach procedure chart. The DH for a CAT I ILS approach is 200 feet or more above the touchdown zone and RVR is 1800 feet or better. The FAA determined that altitude and visibility values could be lowered based upon the demonstrated skill of the flightcrew and the performance of the aircraft and ground based navigation equipment. The FAA has authorized certain operators to use lower than normal CAT I ILS minimums at specified airports after

demonstrating the ability to conduct safe instrument approaches.

A. Copter ILS approval will permit operators to fly to minima no lower than 100 feet height above touchdown and/or to visibilities no lower than 1200 feet RVR on published 14 CFR 97 Copter ILS and CAT II ILS procedures. For Copter ILS approach authorizations, apply the following to the existing guidance in this chapter for Special Category I approval.

B. Title 14 CFR part 97 and those incorporated by reference FAA Order 8260.3, United States Standard for Terminal Instrument Procedures (TERPS), as amended, provide the standards for development of Copter ILS approaches to minima below 200 feet HAT and 1800 RVR. In addition, part 97 CAT II ILS approach procedures provide the ground facility, signal in space and air traffic infrastructure required to support Copter ILS operations, and are acceptable for Copter ILS procedures.

(1) The applicant will complete a formal application letter; FAA Form 7711-2, Application for Certificate of Waiver or Authorization; identifying the aircraft and avionics configuration; and forward to the cognizant FSDO. The FSDO shall review the application package for completeness, verify the aircraft/ avionics data, and forward that data to ASW110/FTW-AEG for determination that the aircraft and installed equipment is suitable to support Copter ILS approaches, to minima lower than 200 feet HAT. Figure 59-1 contains a sample memorandum for this purpose. This determination eliminates the evaluation requirement of paragraph 10B.

(2) If necessary, ASW-110/FTW-AEG will stipulate operational limitations associated with their determination. Figure 59-2 contains sample response memorandums from ASW-110/FTW-AEG.

(3) Basic aircraft requirements include the following equipment in addition to that specified in paragraph 13(B)(1).

(a) Autopilot (AP),

(b) Flight Director (FD), or

(c) HGS (approved for IFR approaches to 200 feet or below),

(d) An alternate static source (or heated static source), and

(e) Radar altimeter.

(4) The applicant must show satisfactory evidence of crewmember experience. The required experience for pilot-in-command (PIC) is:

(a) *Certificate and rating requirements.*

i. At least a private or commercial pilot certificate with a rotorcraft category and helicopter class rating, and an instrument helicopter rating, or

ii. An airline transport pilot certificate with a helicopter rating at the ATP level (not limited to VFR), and

iii. A type rating, if qualification is sought in an helicopter which requires a type rating.

(b) *Experience requirements.*

- 250 hours of PIC time
- 100 hours of PIC time in helicopters
- 50 hours of night flight time as PIC
- 75 hours of actual or simulated instrument flight time, including at least 25 hours of actual or simulated instrument flight time in a helicopter or a helicopter flight simulator

(c) *Recent Experience.* The PIC must have flight experience in Copter ILS, to the lowest authorized minima within the previous 60 days before conducting Copter ILS operations. This may be accomplished using a helicopter flight simulator or training device.

NOTE: If a second-in-command (SIC) is required, that pilot shall meet the certification and experience requirements of 14 CFR 61 to serve in that capacity.

(5) The applicant must show satisfactory evidence of crewmember qualification through training and checking in Copter ILS procedures with 100 feet HAT. No Copter ILS operations may be conducted by a pilot (either PIC or SIC) unless, within the preceding 12 calendar months that pilot has:

(a) Satisfactorily completes a course of training conducted by a part 142 Training Center which includes training and evaluation in Copter ILS approaches to 100 feet HAT as a curriculum segment or module of an approved course or independent Copter ILS qualification course, or

(b) Received ground and flight training from an instructor qualified to conduct Copter ILS approaches to 100 feet HAT as PIC, and the instructor's

endorsement in the pilot's logbook that he/she is competent to conduct those approaches to 100 feet HAT as PIC.

(c) The training referenced in subparagraphs (a) and (b) must include ground training.

- The application of regulations concerning low visibility approach and landing operations (14 CFR §§ 91.175 and 97.3) and the limitations of the Certificate of Authorization, or, in the case of initial application, the proposed limitations of the certificate of Authorization
- Approach and runway lighting systems
- Approach procedure charting
- Visual Perceptions during low visibility approach and landing operations, including angle of view, speed and altitude cues, and visual illusions associated with low visibility approach and landing operations
- Aircraft and avionics systems appropriate to low visibility approach and landing operations, including fault detection, reversionary, and abnormal and emergency procedures
- Missed approach procedures
- Crew Resource Management as applied to low visibility approach and landing operations

(d) The training referenced in subparagraphs (a) and (b) must include flight training (including simulator training, if applicable).

- Use of aircraft systems and avionics in terminal area operations including low visibility approach, landing, and missed approach operations
- Identification of aircraft and avionics system faults, reversionary modes and abnormal and emergency procedures
- Approach procedures, landing from 100 feet DH low visibility approaches and missed approaches from 100 feet DH conducted in accordance with the limitations of FAA Form 77111, or, in the case of an initial application, the

proposed limitations of FAA Form 7711-1

- Crew Resource Management

(6) The airborne ILS avionics equipment will require a check, in accordance with paragraph 13(b)(5), within 30 days before conducting a Copter ILS minima below 200 feet HAT. This check may be accomplished by either a bench check or an authorized pilot flying a Copter ILS approach.

(7) The Operation Authorized portion of FAA Form 7711-1, shall contain at least the following information:

“Standard statement without ASW-100/AEG limitations:

Copter ILS operations on published 14 CFR part 97 Copter ILS and CAT II ILS procedures to minima no lower than 100 feet HAT and 1200 feet RVR, or the published minima, whichever is greater.”

Include the additional steps in subparagraph (a) through (f).

(a) Lowest minima authorized (no lower than 100 feet HAT, 1200 feet RVR, may be restricted by ASW-100/FTW-AEG limitations). See subparagraph (1).

(b) The required avionics configuration for each aircraft (as accepted by ASW-100/FTW-AEG). See subparagraph (1).

(c) Flightcrew certification and experience requirements. See subparagraph (3).

(d) Flightcrew training and qualification requirements. See subparagraph (4).

(e) Airborne ILS receiver check requirements. See subparagraph (5).

(f) Approach Deviation Limitations. Deviations beyond one quarter scale (1/4 scale) localizer or glide slope needle deflection upon arrival at 200 feet HAT, or at any time after passing 200 feet HAT, requires initiation of the missed approach procedure, unless the pilot has at least one of the following visual references in sight and otherwise meets the requirements of 14 CFR § 91.175(c).

C. Resources Available. The following sources for aviation weather technical support are available to operations inspectors in evaluating an applicant's request to conduct Copter ILS approaches to less than 200 feet DH.

Flight Technologies and Procedures Division, AFS-400
800 Independence Ave., SW
Washington, DC 20591
(202) 385-4586

National Resource Specialist for Rotorcraft Operations
General Aviation and Commercial Division, AFS-800
800 Independence Ave., SW
Washington, DC 20591
(202) 267-3771

Forth Worth Aircraft Evaluation Group, FTW-AEG
Southwest Region Headquarters
2601 Meacham Blvd.
Fort Worth, Texas 76137-4298
(817) 222-5270

Aircraft Certification Service, Rotorcraft Directorate
Rotorcraft Standards Staff, ASW-110
2601 Meacham Blvd.
Fort Worth, Texas 76137-4298
(817) 222-5111

5. CRITERIA FOR SPECIAL CAT I MINIMUMS. Both part 125 and part 91 operators may continue to use the standard CAT I minimums without alteration of current authorizations or procedures. Operators must, however, obtain FAA authorization to use the special CAT I minimums. To obtain this authorization, field offices will issue authorizations to general aviation operators by using FAA Form 7711-1, Certificate of Waiver or Authorization, and to part 125 operators by issuing OpSpecs.

6. CRITERIA FOR CAT II AUTHORIZATION. The following steps must be accomplished to authorize an operator to conduct CAT II operations (Table 1):

A. Formal application to the appropriate Flight Standards District Office (FSDO).

B. Evaluation of CAT II aircraft equipment and instruments, if required.

C. An approved Maintenance/Inspection Program and Maintenance Manual, if required.

D. Approval of a CAT II manual, if required.

E. Authorization and special provisions or OpSpecs as applicable.

7. APPLICATION FOR DEVIATION. Section 91.193 provides for deviations to the requirements of §§ 91.189, 91.191, and 91.205(f). This authority applies to the operation of small Category A

aircraft which meet the requirements listed in § 97.3(b)(1). An applicant must complete an FAA Form 7711-2, Application for a Certificate of Waiver or Authorization, when requesting this deviation.

8. INITIAL CONTACT. Initial contact can take any of several forms; i.e., telephone conversation, in-person visit, by letter, submission of an application, etc. Before approval of a CAT II authorization, an operator must accomplish the following:

A. The applicant should submit a letter of intent (Figure 59-3) containing specific information about the proposed operation (e.g., the types of aircraft, schedule

of events, and if required, a description of the maintenance and inspection program.) Small Category A aircraft operators should state the extent of relief requested from the requirements of §§ 91.189, 91.205(f), or 91.191.

B. An applicant is responsible for the completion and submission of FAA Form 7711-2 to the FSDO having geographic jurisdiction over the area in which the operator is located. The application must be submitted a minimum of 30 days before the intended operations. For small Category A aircraft requesting deviation, the 30 day minimum may be reduced as appropriate.

TABLE 1. OPERATOR REQUIREMENTS FOR CAT II

TYPE OF OPERATOR	LETTER OF INTENT	7711-2 APP	EVAL IF REQ'D	CAT II OPS MANUAL	OPERATIONS SPECIFICATIONS	7711-1 AUTHORIZATION
PART 91 OPERATOR	X	X	X	X		X
PART 125 OPERATOR	X		X	X	X	
CAT A SMALL	X	X	X			X

C. For part 125 operators, the letter of intent meets the application requirement and FAA Form 7711-2 need not be submitted. The part 125 operator's amended OpSpecs become the authorization for CAT II operations.

9. APPROACHES AUTHORIZED. Operators approved for CAT II approaches conducted under part 91 may conduct any CAT II approach listed in part 97. The specific approaches do not have to be listed on FAA Form 7711-1 or the OpSpecs.

10. EVALUATION PROGRAM. An evaluation program will be conducted by the operator when the aircraft flight control guidance system required for CAT II operations is not approved under an appropriate type certificated (TC) supplemental type certificate (STC) (part 91, appendix A). Information derived from the evaluation program should be used to develop appropriate operational procedures and techniques in the CAT II manual. Approval by evaluation shall be requested as part of the application for approval of the CAT II manual. Request for deviation of the evaluation program must be coordinated with the regional office Flight Standards branch.

A. Evaluation Program Requirements. An evaluation program is not required if an applicant has an aircraft in

which the instruments and equipment have been type certificated or supplemental type certificated for CAT II operations. The applicant must only present a manual for approval. This manual may have been developed by a manufacturer and adapted for a specific operator's use.

B. Demonstration of Flight Control Guidance System. The equipment to be evaluated for approval will be the flight control guidance system. This program provides a method of approval for those airplane owners or operators having airplanes equipped with a flight control guidance system which is not approved for CAT II operations under an appropriate TC or STC. Satisfactory demonstration will show that the equipment performs to the standards with the reliability necessary for CAT II operations.

C. Requirements for Conducting the Evaluation Program. The procedures and requirements for conducting an evaluation program are prescribed in part 91, appendix A, section 3(e). The following should be considered:

(1) When inner marker receiving equipment is to be used as the primary means of identifying the 100-foot DH, its use will be permitted when the ground equipment is operable. However, in the absence of operable inner marker ground equipment, it will be necessary to rely on barometric altimeters required by part 91, appendix A, section 2(a)(7).

These altimeters will be acceptable under that section if:

(a) the altimeters and their static systems meet the requirements of § 91.411 within the past 12 months; and

(b) altimeter correction data, which considers both scale error and main landing gear wheel height of the airplane, is available to the PIC. Scale error is determined by an altimeter test and inspection under 14 CFR part 43, appendix E, and the wheel height correction is necessary if the wheel-to-instrument height is in excess of 10 feet presently allowed for in U.S. Weather Bureau altimeter settings provided for aircraft. For instance, a large aircraft which has a 19-foot wheel-to-instrument height would require a nine-foot correction under this rule. Barometric altimeters meeting the requirements above are acceptable for CAT II operations to establish DHs down to 150 feet.

(2) If a success rate of 90 percent is not achieved during 50 approaches, additional demonstration approaches may be conducted. (This is not required for Category A aircraft; see paragraph 13 following.) The demonstration approaches should be recorded on a suitable form developed by the operator in order to facilitate evaluation. See Figure 59-4 for an example.

(3) At least half of the approaches required by part 91, appendix A, section 3(e)(2) must be observed by an FAA inspector. Ideally, inspectors from avionics, operations, and airworthiness should participate in the evaluation program.

(4) If the evaluation program is not producing the desired degree of success, the operator should coordinate a reevaluation with the district office.

(5) It is desired that at least one of the three ILS facilities referred to in part 91, appendix A, meet CAT II criteria.

(6) The evaluation program is used to develop and establish appropriate operational procedures and techniques for inclusion in the CAT II manual.

(7) All evaluation approaches must be conducted under simulated instrument conditions after prior arrangement with the controlling air traffic control (ATC) facility. When conducting approaches the phrase "coupled approach or auto land approach" will be used with ATC to ensure that vehicles or other aircraft on the surface will not move into the ILS

critical area. An aircraft or vehicle in the ILS critical area could cause momentary deviations to ILS course or glide slope signals.

(8) Flags, lights, aural warnings, and other displays associated with normal and abnormal functioning of the flight control guidance system should be evaluated to determine if they provide the crew with information suitable for a CAT II operation.

(9) The PIC conducting an evaluation program is not required to meet the CAT II pilot requirements of 14 CFR part 61, § 61.67.

11. INSTRUMENTS AND EQUIPMENT APPROVAL. Criteria for approving the aircraft instruments and equipment are found in part 91, appendix A. Small Category A aircraft operated under a deviation are not required to meet the standards in part 91, appendix A.

A. Currency of Maintenance. Before presenting an aircraft for approval of the instruments and equipment, it must be shown that, since the beginning of the 12th calendar month before the date of submission, the equipment required in part 91, appendix A, section 2(a), has been checked, tested, or inspected according to the standards and methods contained in appendix A, section 3.

B. Listed CAT II Instruments. A list of installed CAT II instruments and items of equipment, including make and model of those specified in part 91, appendix A, section 2(a), must be included in CAT II manuals. If there is a change of installed equipment or instruments, the aircraft and manual may require reevaluation.

C. Operational Checks. The equipment may be operationally checked by ramp test equipment or in a functional flight check conducted by a pilot with CAT II authorization during an approach (Figure 59-4 may be used to record these checks). If an aircraft has gone more than 15 hours and/or 15 days since the last functional check was performed and recorded, the aircraft shall not be used in CAT II operations until the above check is completed. The inspector should be aware that single flight director systems with dual displays in which the second display only repeats the ILS information on the pilot's display will not meet the requirements for two independent dual displays.

12. MANUAL REQUIREMENTS. The following information and procedures should be included in the

CAT II Manual (refer to part 91, appendix A, section 1(b)):

A. Aircraft Identification. Registration number, serial number, make and model of the aircraft to which it applies.

B. Maintenance Program. A maintenance program as specified in part 91, appendix A, section 4.

C. Procedures. The procedures and instructions related to:

- (1) DH.
- (2) Use of runway visual range information.
- (3) The decision region (the region between the middle marker and DH).
- (4) The maximum permissible deviations of the basic ILS indicator within the decision region.
- (5) A missed approach.
- (6) Use of equipment, minimum altitude for use of autopilot.
- (7) Instrument and equipment failure warning systems.
- (8) Instrument failure.
- (9) Other procedures, instructions, and limitations that may be found necessary by the Administrator.

13. SMALL CATEGORY A AIRCRAFT SPECIAL PROVISIONS. For operators of small Category A aircraft holding authorization for deviation, the following special provisions will be listed on FAA Form 7711-1, as appropriate.

A. Exceptions to § 91.189. The provisions of § 91.189 apply to all operations conducted in accordance with this authorization. However, when a second-in-command (SIC) is not required by the aircraft type design, the SIC requirements of § 91.189(a)(1) are not applicable.

B. Exceptions to § 91.205(f). The provisions of § 91.205(f) do not apply with the following exceptions:

- (1) For operations under the terms of this authorization, the instruments and equipment specified

in § 91.205(d) are required together with the following instruments and equipment:

- (a) a communication system that does not affect the operation of the ILS systems;
- (b) a marker beacon receiver that provides distinctive aural and visual indications of the outer and middle marker;
- (c) one sensitive altimeter adjustable for barometric pressure having a placarded correction for altimeter scale error, in the absence of a radio altimeter;
- (d) one vertical speed indicator;
- (e) for operations with DH's below 150 feet, either a marker beacon receiver providing aural and visual indications of the inner marker or a functioning radio altimeter;
- (f) warning systems for immediate detection by the pilot of system faults in the ILS and the radio altimeter (if required);
- (g) an externally vented static pressure system with an alternate static pressure source; and
- (h) a heat source for the airspeed system pilot tube installed or an equivalent means of preventing malfunctioning because of icing of the pilot system.

- (2) No passengers or property may be carried for compensation or hire.

- (3) The following minimums apply for ILS approaches to CAT II runways: DH RVR.

- (4) This authorization applies only to the following: [*insert the aircraft make, model, registration, and serial number.*]

- (5) Operations under the terms of this authorization shall not be conducted unless the required ILS equipment has been operationally checked within the preceding fifteen hours of flight time and within 15 days before flight and found to perform satisfactorily for the type of operation authorized. The check may be performed using ramp test equipment, a functional flight check conducted by a pilot holding a CAT II authorization, or by an actual approach. Such checks shall be recorded in the aircraft logbook or aircraft maintenance records by the person performing the check as provided in § 91.407(b).

14. AUTHORIZATION OF CAT I MINIMUMS.

Before issuing an authorization to use special CAT I minimums, inspectors shall ensure that each operator meets the following conditions:

A. Aircraft and Associated Aircraft Systems. The authorized aircraft must be equipped with an approved autopilot approach coupler, HUD, or FD system that provides guidance to DH. Inspectors must establish that the approach coupler, HUD, or FD are certified for use down to an altitude of 200 feet above ground level (AGL) or lower.

B. Flightcrew Procedures. The PIC must use the AFCGS, HUD, or FD to DH or to the initiation of a missed approach, unless visual references with the runway environment are established, allowing safe continuation to a landing. If the AFCGS, HUD, or FD malfunctions or becomes disconnected, the PIC may not descend below standard minimums unless the runway environment is in sight.

C. Flightcrew Qualifications. PICs must have demonstrated proficiency using the AFCGS, HUD, or FD (as appropriate) on the most recent instrument proficiency check required by § 125.291 or the PIC proficiency check required by § 61.58 (as applicable). For operations to which §§ 125.291 and 61.58 do not apply, the applicant must have demonstrated instrument proficiency in accordance with the standards in the Airline Transport Pilot and Type Rating Practical Test Standards within the preceding 12 calendar-months.

D. Part 125 Operators. POIs having certificate management responsibility for operators requesting approval for use of CAT I Special Minimums should contact the regional Flight Standards division to obtain instructions and the specific pages necessary to issue the OpSpecs subparagraph for Special Aircrew, Aircraft Authorized Minimums. POIs shall record adding subparagraph C53f to the operators' OpSpecs by using PTRS code 1404 and by placing "SPECLCATI" in the National Use field. Entries into this data field are purposely specific in nature and used for analysis of certain kinds of inspections and safety trends. Extreme caution should be exercised in making exact entries into the National Use field.

E. Part 91 Operators. General Aviation operators may be issued FAA Form 7711-1 authorizing use of special CAT I minimums. A separate form is required for each aircraft.

(1) The operator must apply for authorization by using FAA Form 7711-2, Application for a Certificate of Waiver or Authorization.

(a) Block 5 of the application should contain a request for authorization to conduct straight-in CAT I ILS approaches using "Special Aircrew and Aircraft Authorization Required" minimums.

(b) Block 6 of the application may indicate specific locations or all locations at which, Special Aircrew and Aircraft Authorization Required, minimums are published.

(c) Block 8(a) must list the aircraft make and model. Pilot names and addresses in blocks 8(b) through 8(d) should be left blank.

(2) Inspectors shall prepare FAA Form 7711-1 in accordance with the procedures in section 2.

(3) The Certificate of Authorization will expire 24 calendar-months after the date of issuance. The certificate may be renewed upon receipt of a new application, provided the certificate holder retains operational control of the aircraft and maintains an acceptable safety record.

(4) Inspectors shall record the issuance of the certificate using PTRS code 1404 and place SPECLCATI in the National Use field. Entries into this data field are purposely specific in nature and used for analysis of certain kinds of inspections and safety trends. Extreme caution should be exercised in making exact entries into the National Use field.

15. APPROVAL, RENEWAL, AND TRANSFER OF OWNERSHIP FOR CAT II MINIMUMS.

A. Approval. The authorization shall be for 24 calendar-months and shall expire at the end of the twenty-fourth calendar month. Authorization shall be for specific aircraft by registration and serial number (see part 91, appendix A).

(1) The district office manager, or designated representative, signs FAA Form 7711-1 upon approval. FAA Form 7711-1 and any special provisions are issued to the applicant. The original of FAA Form 7711-1 shall be carried on board the aircraft when conducting CAT II operations.

(2) For part 125 operators, OpSpecs must be issued. A limited number of requests for these authorizations are expected. The OpSpecs are not automated at this time and must be issued by the FSDO after examining the letter of intent and

determining eligibility for authorization (see volume 2, chapter 76). A copy of the OpSpecs which authorize CAT II operations shall be carried on board the aircraft when conducting CAT II operations.

B. Renewal. An operator may renew authorization by submitting an application one month before the expiration date. If the operator's application for renewal is approved, a Certificate of Authorization may be issued for 24 calendar-months.

C. Transfer of Ownership. The regulations under which CAT II airborne equipment and systems are approved and authorized for use does not address the transfer of ownership of the aircraft in which the equipment is installed. The authorization to conduct CAT II operations by the new owner does not require reapproval of the airborne equipment or the procedures, limitations, and maintenance program described in the approved CAT II manual for the aircraft involved. It follows that the aircraft purchaser should arrange for transfer of the approved CAT II manual with the airplane. Before engaging in CAT II operations, the new owner must review the approved CAT II manual to determine if the manual contents, including the maintenance program, are compatible with the operator's capability and operational requirements. If the CAT II manual requires revisions which are necessary or are desirable, the operator should submit those revisions to the FSDO having geographic responsibility for the operator before conducting any CAT II operations.

16. REVIEW FAA FORM 7711-2. Pertinent items are discussed below for purposes of clarity and uniformity. The application should be reviewed upon receipt for obvious discrepancies. The information

submitted by the applicant on FAA Form 7711-2 MUST NOT be altered by the issuing office.

A. Items 1 and 2. If the applicant is a representative of an organization, the organization's name should appear in item 1. The name of the individual and his/her position or authority to represent the organization (e.g., the "responsible person") should appear in item 2. If the applicant is not representing others, the term "N/A" should be entered in item 1 and the applicant's name entered in item 2.

B. Item 4. In many instances the applicant does not know or is not sure which sections of the regulations are involved. A conference with the applicant before acceptance of the application may be necessary.

C. Item 5. It is sufficient for the applicant to use the phrase "CAT II operations" to describe the type of operation.

D. Item 6. A detailed description of any city, town, county, and/or state over which CAT II operations will be conducted and the minimum altitudes essential to accomplish the operation should be included in this item.

E. Item 7. The applicant should list the beginning date and hour and ending date and hour for the operation in this item. The dates requested must not exceed 24 calendar-months.

F. Item 8. At the time the application for an authorization is submitted, the applicant may not know the names of the pilots or the aircraft to be used in a particular operation. The application may be accepted with a notation in item 8 that a list will be provided at a later, specified date.

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SECTION 2. PROCEDURES

1. PREREQUISITES AND COORDINATION REQUIREMENTS.

A. Prerequisites. This task requires knowledge of regulatory requirements of parts 91 and 125 and FAA policies and qualification as an ASI (operations).

B. Coordination. This task requires coordination with avionics and airworthiness units.

2. REFERENCES, FORMS, AND JOB AIDS.

A. References.

- Title 14 CFR parts 1, 43, and 97
- Advisory Circular (AC) 91-16, Category II Operations-General Aviation Airplanes
- AC 120-28, Criteria for Approval of Category III Weather Minima for Takeoff, Landing, and Rollout
- AC 120-29, Criteria for Approval Category I and Category II Landing Minima for Approach
- FAA Order 7110.65, Air Traffic Control
- FAA Order 8300.10, Airworthiness Inspector's Handbook
- FAA Order 8400.10, Air Transportation Operations Inspector's Handbook
- PTRS Procedures Manual (PPM)

B. Forms.

- FAA Form 7711-1, Certificate of Waiver or Authorization
- FAA Form 7711-2, Application for a Certificate of Waiver or Authorization

C. Job Aids.

- Sample letters and figures

3. PROCEDURES.

A. Initial Inquiry.

(1) Upon initial inquiry, determine the type of operation proposed and which of the following apply:

- (a) Special CAT I operations.
- (b) CAT II operations conducted by a small Category A aircraft.
- (c) CAT II operations conducted by an aircraft under part 125 operations.

(d) CAT II operations conducted by aircraft other than a small Category A aircraft or an aircraft operated under part 125.

(e) If CAT III operations are requested, contact the regional Flight Standards operations branch for guidance.

(2) Except for special CAT I operations, advise the applicant to submit a letter of intent (Figure 59-1).

(3) Provide the applicant with a copy of AC 91-16 or advise the applicant on how to obtain a copy of the AC.

(4) Provide the applicant with a copy of FAA Form 7711-2 (not required for part 125 operator) and a copy of Instructions for Completion of FAA Form 7711-2 (Figure 59-3).

(5) Advise the applicant that items 1 through 8 and item 15 on FAA Form 7711-2 must be completed. Inform the applicant that the application must be signed on the reverse side by the owner or an authorized official of the company. If the owner is a corporation, the full name of the corporation and its principal business office address must be indicated.

(6) Advise the applicant (except part 125 applicants) that FAA Form 7711-2 must be submitted at least 30 days before intended operations begin.

(7) Advise part 125 applicant's to submit their OpSpecs and a letter of intent.

(8) Operations Inspectors shall review all applications for approval of operator use of Copter ILS approaches to minima less than 200 feet DH using the guidance provided in section 1, paragraph 4.

(a) Approval shall be noted by issuance of FAA Form 7711-2, Certificate of Waiver or Authorization, with the limitations described in paragraph 4.

(b) Disapproval shall be noted by a letter to applicant indicating disapproval. The reasons for disapproval should be specified in the letter.

B. PTRS. Make appropriate PTRS entries. Note the date the letter of intent (if applicable) was sent for review.

(1) PTRS entry is not required in the absence of an applicant/certificate holder request for approval to use a Copter ILS approach procedures to a DH lower than 200 feet.

(2) Operations inspectors shall make a PTRS entry to record the evaluation of applications for approval to conduct Copter ILS approach procedures to minima lower than 200 feet DH. The PTRS code is 1220 and the National Use field entry shall be listed as **HBAT-CILS**. The comments section of the PTRS shall be used to record the disposition of the applicant's request.

C. Receipt of Application. Upon receipt of the letter of intent and/or FAA Form 7711-2, as appropriate:

(1) Ensure that the letter of intent contains at least the information outlined in section 1, paragraph 3F(1).

(2) Provide a copy of the letter of intent and/or FAA Form 7711-2 to the airworthiness and avionics units for timely inter-office coordination and review.

(3) Using the information provided by the applicant and the background in section 1, review FAA Form 7711-2 for all pertinent information for the proposed operations. Accept strikeovers that are minor in nature and initialed by the applicant. Items 9 through 14 apply to airshow and air race waiver requests only.

(a) *Items 1 and 2, Name of Organization/Name of Responsible Person.* Ensure that the applicant has indicated the name of the organization or individual applying and the name of a person responsible for matters concerning the application.

(b) *Item 3, Permanent Mailing Address.* Ensure that the applicant has indicated the permanent mailing address of the organization or individual named in item 1.

(c) *Item 4, FAR Section and Number to be Waived.* Ensure that the applicant has listed all sections of the regulations that need to be waived with regard to the CAT II operations.

(d) *Item 5, Detailed Description of Proposed Operations.* Ensure that the applicant has described the CAT I or CAT II operation.

(e) *Item 6, Area of Operations.* Ensure that the operator of a Category A aircraft at CAT I sites has listed the CAT I airports.

(f) *Item 7, Time Period.* Ensure that the time period indicated does not exceed 24 calendar-months for initial issuance or 24 months for renewal, if appropriate.

(g) *Item 8, Aircraft Make and Model.* Check for aircraft make and model only.

(h) *Item 15, Certification.* Ensure that the applicant has signed and dated FAA Form 7711-2 and each page of the application.

(4) For CAT II operations, if a CAT II operations manual is not required, review the evaluation program.

(5) If a CAT II operations manual is required and has been submitted, review the manual.

D. Review the CAT II Operations Manual.

(1) Ensure that the CAT II operations manual contains the items discussed in section 1, paragraph 12.

(2) Coordinate review of the manual with the airworthiness and avionics units as necessary.

E. Unsatisfactory CAT II Operations Manual. If the manual is unsatisfactory:

(1) Contact the applicant and explain areas of the CAT II operations manual that need to be corrected.

(2) Prepare a letter of disapproval (Figure 59-6), with a suspense date for submission of the corrected CAT II operations manual.

(3) If applicable, mark the Disapproved block of FAA Form 7711-2, list reasons for the disapproval in the Remarks section of FAA Form 7711-2, and sign and date in the Action block of FAA Form 7711-2.

(4) Retain a copy of the CAT II operations manual for future comparison.

(5) Return the application, the CAT II operations manual, and the letter of disapproval to the applicant.

F. Satisfactory CAT II Operations Manual. If the manual is satisfactory:

(1) Approve the manual in accordance with the criteria in § 91.191 and part 91, appendix A, coordinating with avionics and airworthiness as necessary.

(2) Prepare a letter of approval (Figure 59-7).

(3) Continue with the task.

G. Evaluation Program.

(1) If an evaluation program is required, establish a schedule of events in order to conduct the

required observations in accordance with part 91, appendix A.

(2) Observe the required number of approaches.

(3) Examine the evaluation program record of each required ILS approach completed in accordance with part 91, appendix A, section 3(e)(2) to verify the test results.

(4) Continue with the task.

H. Prepare FAA Form 7711-1.

(1) Mark the Approved block on FAA Form 7711-2, and sign and date in the Action block of FAA Form 7711-2.

(2) Fill in the inspector portion of FAA Form 7711-1.

(3) Develop any special provisions that are not covered in the applicant's CAT II operations manual.

(4) Submit to the district office manager, or designated representative, for signature.

(5) For part 125 operators, issue OpSpecs per volume 2, chapter 76.

I. *Special CAT I Authorizations.* For Special CAT I authorizations, place the following limitations on the back of the certificate:

(1) The individual to whom this certificate is issued is hereafter referred to as the certificate holder. Additionally, limitations (2) through (7) apply.

(2) *Aircraft and Associated Aircraft Systems.* This authority is limited to the aircraft listed in block 8 of the attached FAA Form 7711-2 equipped with [*list make and model of autopilot approach coupler, HUD or FD*].

(3) This authority is rescinded when either the autopilot approach coupler, HUD, or FD (as applicable) is inoperative or removed from the aircraft or when the aircraft is no longer under the operational control of the certificate holder.

(4) *Authorized Pilots.* This authority applies only to those PICs operating under the control of the certificate holder. PICs shall carry proof that they have been authorized to conduct these operations by the certificate holder and shall present this proof upon request of an FAA inspector, National Transportation Safety Board (NTSB) representative, or law enforcement officer.

(5) A copy of this certificate and attachments must be carried in the aircraft when conducting the authorized operation.

(6) *Flightcrew Procedures.* The certificate holder must require that PICs use the autopilot approach coupler, HUD, or FD (as applicable) to either the DH or to the initiation of the missed approach. Should the autopilot approach coupler, HUD, or FD malfunction during the approach, the PIC must execute a missed approach no later than arrival at standard minimums, unless visual reference to the runway environment has been established.

(7) *PIC Qualification.* The certificate holder must ensure that each PIC has satisfactorily demonstrated an ILS approach using the autopilot approach coupler, HUD, or FD (as applicable) to minimums in accordance with the instrument proficiency check requirements of § 125.291, the PIC proficiency check requirements of § 61.58, or for operations to which § 125.291 and 61.58 do not apply, the instrument proficiency standards in the Airline Transport Pilot and Type Rating Practical Test Standards within the preceding 12 calendar-months. A record of this demonstration must have been made in either the PIC's logbook or training records.

J. *District Office File.* Establish a district office file on the operator that includes, but is not limited to, a copy of the following, as applicable:

(1) FAA Form 7711-1 and any special provisions.

(2) FAA Form 7711-2.

(3) Letter of intent.

(4) The approved CAT II operations manual.

(5) The OpSpecs (part 125 only).

(6) The evaluation program information, if required.

(7) Letter of approval.

(8) Letter of disapproval.

(9) Other documents of correspondence.

K. *Distribution.* Send the originals of the following documents to the applicant:

(1) FAA Form 7711-1 and any special provisions.

(2) FAA Form 7711-2.

(3) The approved CAT II operations manual.

(4) The OpSpecs.

(5) The evaluation program.

(6) Letter of approval of a CAT II operations manual.

L. PTRS. Make appropriate PTRS entries.

4. TASK OUTCOMES. Completion of this task results in one or more of the following:

- A.* An approved CAT II operations manual.
- B.* A Certificate of Waiver or Authorization.
- C.* OpSpecs for the aircraft.
- D.* An approved evaluation program.
- E.* A disapproved application.

F. A letter indicating disapproval of a CAT II operations manual.

G. A letter indicating approval of a CAT II operations manual.

5. FUTURE ACTIVITIES.

- A.* Renewal of aircraft authorization.
- B.* Review revisions to the operator's CAT II operations manual.
- C.* Possible enforcement investigation.

FIGURE 59-1
SAMPLE MEMORANDUM FROM FSDO TO ASW-100/FTW-AEG

Subject: **Approval for Copter ILS approaches**

Date:

From:

Reply to
Attn. of:

To: **Manager, Rotorcraft Standards Staff (ASW-110)**

The _____ Flight Standards District Office (FSDO) requests assistance from the Rotorcraft Standards Staff in determining whether the helicopter referenced below should be approved to conduct Copter ILS and CAT II ILS approach procedures to less than 200 feet DH. This office has received a request from a part 91 and/or part 135 operator, (applicant) for Copter ILS approval using the following aircraft/equipment:

Helicopter Model: _____

Serial Number: _____

Registration Number: _____

IFR Approval Basis: _____ (Supplement or STC number)

Displays: _____ (EFS 40, EDZ-756, etc, or mechanical)

Autopilot Model: _____

Flight Director Model: _____

Radar Altimeter: _____

Avionics Suite: _____

Additional information: _____ (Single pilot, Dual pilot, etc)

If you need additional information please contact (name of applicant) at (telephone number) or FAA Aviation Safety Inspector (name) at (telephone number).

cc: Manager, Aircraft Evaluation Group, FTW-AEG

FIGURE 59-2
SAMPLE RESPONSE MEMORANDUM FROM ASW-100/ASW-225 TO FSDO

Subject: **Approval of Copter ILS Approaches**

From: **Manager, Rotorcraft Standards Staff (ASW-110)**
Manager, FTW Aircraft Evaluation Group (ASW-225)

To: _____ **Flight Standards District Office (FSDO)**

This letter is in response to your request for assistance in determining whether the helicopter referenced in your Memorandum should be approved to conduct Copter ILS and CAT II ILS approach procedures to less than 200 feet DH. The Rotorcraft Standards Staff (ASW-110) and FTW Aircraft Evaluation Group (ASW-225) have reviewed the helicopter and equipment stated in the request from a Part 91 and/or Part 135 operator, [*applicant*] for Copter ILS approval and provides the following recommendation:

The Rotorcraft Standards Staff and FTW-AEG recommends approval (or disapproval) of the request from [*applicant*] for Copter ILS approach, using helicopter Model _____, Serial Number _____, with the following limitations:

(Example of limitations)

1. Decision Height (DH) limited to (between 100 to 200) feet, if appropriate to account for altitude loss following AFCS failures.
2. Some items for which relief is normally allowed under the MEL may be required for Copter ILS operations.
3. Other limitations appropriate for a specific model.

If additional information is necessary to clarify the approval (or disapproval) and the specific limitations provided, please contact _____ at [*telephone number*] in the Rotorcraft Standards Staff or _____ at [*telephone number*] in the FTW Aircraft Evaluation Group.

FIGURE 59-3
SAMPLE LETTER OF INTENT TO CONDUCT CAT II OR III OPERATIONS

[date]

The Hi-Flyer Company (proposed CAT II operator)
350 Mulberry Avenue
Red Bluff, CA 96080

Dear Inspector:

The Hi-Flyer Company operates a Cessna T-210F, N6114R on a regular basis into and out of the Stockton Metropolitan Airport, Stockton, California (SCK). Because of the predominant inclement weather (fog) during certain months of the year we find it necessary to conduct Instrument Landing System (ILS) approaches to runway 29 on a regular basis.

Our experience at Stockton is that we often execute a missed approach and proceed to our alternate when ceilings of 100 feet and RVR 1600 are predominant.

Our aircraft is equipped with Dual Nav-Com's, one glide slope receiver, a 75 MHz marker beacon receiver capable of receiving the outer, middle, and inner markers, and an automatic direction finder (ADF). Routine aircraft and avionics maintenance is performed by Aero Maintenance located at Bidwell Field. Aero Maintenance is an FAA approved repair station.

Initially, we anticipate qualifying one pilot, Mr. James T. Moore. His total flight time exceeds 1800 hours, with 350 hours in our Cessna 210 and a total of 117 hours of instrument time. He holds Airline Transport Pilot Certificate Number 1530983 with an airplane single engine land rating and a class II medical certificate issued on (date). Mr. Moore is available for any pilot qualifications checks the FAA may require. We would like to begin our certification process immediately. We look forward to hearing from you.

Sincerely,

Mr. Hy Everberg, President

FIGURE 59-4 CAT II APPROACH EVALUATION

CATEGORY II APPROACH EVALUATION

Pilot-in-Command (PIC) _____ Second-in-Command (SIC) _____

Date _____ Registration No. _____ Airport _____

Runway _____ Weather _____ Wind _____ FAA Inspector _____

This form will be completed whenever an approach is attempted using the airborne low approach system, regardless of whether the approach is abandoned or concluded successfully.

APPROACH EVALUATION:

1. Was the approach successful? Yes _____ No _____
2. Flight control guidance system used:
 - a. Auto-coupler _____
 - b. Flight director _____
 - c. If equipped and used, did a. and b. agree? Yes _____ No _____
 - Second-in-Command? Yes _____ No _____
 - FAA Inspector? Yes _____ No _____
3. Airspeed at middle marker \pm at _____ 100' \pm _____ from programmed speed?
4. If unable to initiate _____ or complete _____ approach (indicate which), indicate the cause:
 - a. Airborne equipment _____ Identify and describe nature of deficiency.
 - b. Ground equipment _____ Identify and describe nature of deficiency.
 - c. Approach control or tower request _____ .
 - d. Other _____ State reason: _____
5. Was airplane in trim at 100' for continuation of flare and landings?
6. If approach and landing abandoned, state altitude above runway: feet, (state reasons)

7. Quality of overall performance: Acceptable _____ Unacceptable _____

Signature PIC

FIGURE 59-5
INSTRUCTIONS FOR COMPLETION OF FAA FORM 7711-2

1. PREPARING FAA FORM 7711-2. Items from FAA Form 7711-2 are discussed below for purposes of clarity and uniformity of its use. However, not all items on the form may be applicable to the application request. Items 9 through 14 apply to airshow and air race waiver requests only.

a. Items 1 and 2, Name of Organization/Name of Responsible Person. If you are a representative of an organization, then the organization's name should appear in Item 1. Your name and title or position, as the organization's representative, for application purposes should appear in Item 2. If you are not representing an organization, the term "N/A" should be entered in Item 1 and your name in Item 2.

b. Item 3, Permanent Mailing Address. Self-explanatory.

c. Item 4, FAR Section and Number to be Waived. All applicable sections and numbers that are to be waived for the operation to be conducted must be listed in this item. If you are unsure which sections will need to be waived, contact the FSDO for guidance.

d. Item 5, Detailed Description of Proposed Operations. It is sufficient to use the term " " for a description. However, additional detailed information may be included.

e. Item 6, Area of Operation. Only operators of Category A aircraft need to list Category I sites where operations will occur.

f. Item 7, Time Period. List the beginning and ending dates for the proposed operation. Maximum time period for operations is 24 calendar months (i.e., June 12, 1996, to June 30, 1998.)

g. Item 8, Aircraft Make and Model. List only the aircraft by make and model that will be used in the operation.

h. Item 9, Sponsorship. Not required.

i. Item 10, Permanent Mailing Address of Sponsor. Not required.

j. Item 11, Policing. Not required.

k. Item 12, Emergency Facilities. Not required.

l. Item 13, Air Traffic Control. Not required.

m. Item 14, Schedule of Events. Not required.

n. Item 15, Certification. As the applicant or an organization's representative, you must sign in this block and on each page of the application.

FIGURE 59-6
SAMPLE LETTER OF DISAPPROVAL OF A CAT II OPERATIONS MANUAL

[*date*]

[*applicant's name and address*]

Dear [*applicant's name*]:

This is to inform you that the Category II operations manual submitted on [*indicate date*] has been disapproved for the following reasons:

[*list reasons for disapproval*]

Please make the corrections noted and resubmit to this office within 15 days of receipt of this letter.

If you have any questions please feel free to contact this office during regular business hours at the following telephone number [*indicate number*].

Sincerely,

[*POI's signature*]

FIGURE 59-7
SAMPLE LETTER INDICATING APPROVAL OF A CAT II OPERATIONS MANUAL

[*date*]

[*applicant's name and address*]

Dear [*applicant's name*]:

This is to inform you that the Category II operations manual submitted on [*indicate date*] has been approved.

If you have any questions please feel free to contact this office during regular business hours at the following telephone number [*indicate number*].

Sincerely,

[*POI's signature*]

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